10}

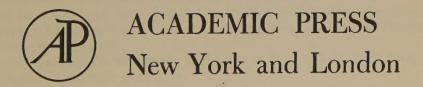
General and Comparative Endocrinology

An International Journal

Editors-in-Chief
AUBREY GORBMAN
J. M. DODD

Published under the Auspices of the Division of Comparative Endocrinology of the American Society of Zoologists, and the European Society for Comparative Endocrinology

> Volume 33 1977



Copyright © 1977 by Academic Press, Inc.

All Rights Reserved

No part of this publication may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopy, recording, or any information storage and retrieval system, without permission in writing from the copyright owner.

Contents of Volume 33

Number 1, September 1977

TOHRU ADACHI AND SUSUMU ISHII. Binding of Rat Follicle-Stimulating Hormone to the Turtle Ovary in Vitro and Inhibition of the Binding by Gonadotropin	
Preparations of Various Vertebrates	1
COLIN R. STOREY AND TREVOR J. NICHOLLS. Plasma Luteinizing Hormone Levels	
following Ovariectomy of Juvenile Female Mallards (Anas platyrhyncos)	8
SYLVIE LAUVERIAT. L'Evolution Post-Imaginale du Tissu Adipeux Femelle de	12
Locusta migratoria et son Controle Endocrine	13
Mue et Vitellogenèse chez le Crustacé Amphipode Orchestia gammarella	
Pallas. II. Etude de la Synthèse de la Vitellogénine ("Fraction Protéique	
Femelle' de l'Hémolymphe) après Destruction des Organes Y	35
TAKEO KISHIMOTO AND HARUO KANATANI. Lack of Species Specificity of Starfish	
Maturation-Promoting Factor.	41
Z. YARON, AVIVA TERKATIN-SHIMONY, Y. SHAHAM, AND H. SALZER. Occurrence	
and Biological Activity of Estradiol-17 β in the Intact and Ovariectomized	
Tilapia aurea (Cichlidae, Teleostei).	45
P. R. ZELNIK, D. J. HORNSEY, AND M. W. HARDISTY. Insulin and Glucagon-like Immunoreactivity in the River Lamprey (Lampetra fluviatilis)	53
MADAN M. VARMA. Ultrastructural Evidence for Aldosterone- and	23
Corticosterone-Secreting Cells in the Adrenocortical Tissue of the American	
Bullfrog (Rana catesbeiana)	61
EUGENIA S. FARRAR AND B. E. FRYE. Seasonal Variation in the Effects of Adrena-	
lin and Glucagon in Rana pipiens	76
STEVEN GATER AND MICHAEL BALLS. Amphibian Pancreas Function in Long-	0.2
Term Organ Culture. Control of Amylase Release.	82
STEVEN GATER AND MICHAEL BALLS. Amphibian Pancreas Function in Long-	94
Term Organ Culture. Control of Insulin Release	74
Hormone and Prawn Red Pigment-Concentrating Hormone in Insect and Crus-	
tacean Systems	103
CHARLES H. MULLER. In Vitro Stimulation of 5α -Dihydrotestosterone and Testos-	
terone Secretion from Bullfrog Testis by Nonmammalian and Mammalian	
Gonadotropins	109
Charles H. Muller. Plasma 5α -Dihydrotestosterone and Testosterone in the	122
Bullfrog, Rana catesbeiana: Stimulation by Bullfrog LH	122
JEAN-GUY LEHOUX, LIAT TAN, AND BENJAMIN PREISS. A Comparative Study of 3-Hydroxy-3-Methylglutaryl Coenzyme A Reductase Activity in Vertebrate	
Adrenocortical Tissues	133
PATRIZIA C. MACEROLLO. Pancreatic Islet Cells in Very Young Chick Embryos	
with Special Reference to D Cells	139
PAIDEO KALLIECHARAN AND BRIAN K. HALL. The in Vitro Biosynthesis of Ste-	
roids from Pregnenolone and Cholesterol and the Effects of Boville ACTIT on	1.47
Corticoid Production by Adrenal Glands of Embryonic Chicks	147

Notes	
M. Arslan, J. Lobo, A. A. Zaidi, and M. H. Qazi. Effect of Mammalian Gonadotropins (HCG and PMSG) on Testicular Androgen Production in	
the Spiny-Tailed Lizard, Uromastix hardwicki	160
R. BILLARD, M. RICHARD, AND B. BRETON. Stimulation of Gonadotropin	
Secretion after Castration in Rainbow Trout.	163
Announcement	166
ANNOUNCEMENT	
Number 2, October 1977	
YASUO INUI AND MOTOYOSHI YOKOTE. Effects of Glucagon on Amino Acid Me-	
tabolism in Japanese Eels, Anguilla japonica	167
W. CRAIG CLARKE, SUSAN WALKER FARMER, AND K. M. HARTWELL. Effect of	
Teleost Pituitary Growth Hormone on Growth of Tilapia mossambica and on	
Growth and Seawater Adaptation of Sockeye Salmon (Oncorhynchus nerka).	174
SWIETKANA WARTOŃ AND ANDRZEJ B. DUTKOWSKI. Ultrastructure of the Neuro-	
secretory Cells of the Pars Intercerebralis of Galleria mellonella (Lepidoptera)	
after Noradrenaline Administration	179
FIORENZA ACCORDI AND ELENA GRASSI MILANO. Catecholamine-Secreting Cells	
in the Adrenal Gland of Bufo bufo during Metamorphosis and in the Adult.	187
James N. Fryer and Richard E. Peter. Hypothalamic Control of ACTH Secre-	
tion in Goldfish. I. Corticotrophin-Releasing Factor Activity in Teleost Brain	
Tissue Extracts.	196
JAMES N. FRYER AND RICHARD E. PETER. Hypothalamic Control of ACTH Secre-	
tion in Goldfish. II. Hypothalamic Lesioning Studies	202
JAMES N. FRYER AND RICHARD E. PETER. Hypothalamic Control of ACTH Secre-	
tion in Goldfish. III. Hypothalamic Cortisol Implant Studies	215
Paul Licht, Antonella Bona Gallo, and Ellen L. Daniels. In vitro Binding	
of Radioiodinated Sea Turtle (<i>Chelonia mydas</i>) Follicle Stimulating Hormone	71.5
to Reptilian Gonadal Tissues. Paul Licht, Duncan S. MacKenzie, Harold Papkoff, and Susan Farmer.	226
Immunological Studies with the Gonadotropins and Their Subunits from the	
Green Sea Turtle Chelonia mydas	221
ZAW WIN MAUNG AND B. K. FOLLETT. Effects of Chicken and Ovine Luteinizing	231
Hormone on Androgen Release and Cyclic AMP Production by Isolated Cells	
from the Quail Testis.	242
H. MIYAUCHI, F. T. LAROCHELLE, JR., M. SUZUKI, M. FREEMAN, AND E.	242
TRIEDEN. Studies on Invroid Hormones and Their Rinding in Rullfrog Todayle	
Tasina during Metamorphosis.	- 254
D. D. DROWN AND D. R. FULLETT, Effects of Androgen on the Testis of Integer and	254
Trypophysectomized Japanese (Juail.	267
OHN I. MCCARTHY AND DOROTHY M. SKINNER Proceducial Changes in G.	207
Ledysonic Titers, Castrollin Formation and Limb Regeneration falls	
induction by Linto Autotolity and/or Evestally Demoved in the I are	
occarcinas tateratis.	278
DESTARDING AND TRED W. TIREK Hitects of Testastanana - G	270
genesis and Luteinizing Hormone Release in Japanese Quail.	202

-				
N I	-	-	-	_
	m		11	ш

WALTON W. DICKHOFF. A Rapid, High-Efficiency Bioassay of Melanocyte-Stimulating Hormone. Announcement.	304
ANNOUNCEMENT	307
Number 3, November 1977	
M. A. RANKIN AND LYNN M. RIDDIFORD. Hormonal Control of Migratory Flight	
in Oncopeltus fasciatus: The Effects of the Corpus Cardiacum, Corpus Allatum, and Starvation on Migration and Reproduction	309
Metabolism of Avian Adipose and Liver Tissue	322
E. GORDON GRAU AND MILTON H. STETSON. The Effects of Prolactin and TSH on Thyroid Function in Fundulus heteroclitus.	329
Douglas R. Robertson. The Annual Pattern of Plasma Calcium in the Frog and	349
the Seasonal Effect of Ultimobranchialectomy and Parathyroidectomy	336
D. E. Kime. Measurement of 1α-Hydroxycorticosterone and Other Corticosteroids in Elasmobranch Plasma by Radioimmunoassay	344
HELEN COOLEY AND P. A. JANSSENS. Metabolic Effects of Infusion of Cortisol and	
Adrenocorticotrophin in the Tammar Wallaby (Macropus eugenii Desmarest).	352
T. I. KOIKE, L. R. PRYOR, H. L. NELDON, AND R. S. VENABLE. Effect of Water	
Deprivation of Plasma Radioimmunoassayable Arginine Vasotocin in Conscious Chickens (Gallus domesticus)	359
B. ROBINZON, N. SNAPIR, AND M. PEREK. Histological Changes in the	337
Adenohypophysis and Thyroid Gland of Propylthiouracil-Treated Chickens	365
Following Placement of Basomedial Hypothalamic Lesions TERRENCE KAYES. Effects of Hypophysectomy, Beef Growth Hormone Replace-	303
ment Therapy, Pituitary Autotransplantation, and Environmental Salinity on	271
Growth in the Black Bullhead (<i>Ictalurus melas</i>)	371
Regulation of Length, Weight, and Allometric Growth and Total Lipid and	202
Water Concentrations in the Black Bullhead (<i>Ictalurus melas</i>) J. Fontaine, C. Le Lièvre, and N. M. Le Douarin. What is the Developmental	382
Fate of the Neural Crest Cells Which Migrate into the Pancreas in the Avian	200
Embryo? Michael S. Lippe, Jeffrey I. Gassman, Stephen P. Soltoff, and David B.	394
KING. Thyroidal Influence on the Lactate Dehydrogenase Isozyme Pattern in	
Pectoralis Muscle of Chick Embryos	405
MICHEL DESCAMPS. Influence de la Croissance Somatique sur le Cycle Spermatogénétique de Lithobius forficatus L. (Myriapode Chilopode)	412
YASUO INUI AND AUBREY GORBMAN. Sensitivity of Pacific Hagfish, Eptatretus	122
stouti, to Mammalian Insulin	423
and Electrolyte Balance in Adrenalectomized Rats with Diabetes Insipidus	
(Brattleboro Strain) Given Antidiuretic Hormone	428
P. LAZAROVIÇI AND M. P. PENER. Juvenile Hormones (JHs) and Completion of Oöcyte Development in the African Migratory Locust: A Comparative and	
Quantitative Study	434

Number 4, December 1977

BERNARD W. INCE AND ALAN THORPE. Plasma Insulin and Glucose Responses to Glucagon and Catecholamines in the European Silver Eel (Anguilla anguilla L.).	453
E. F. Skorkowski, Maria Rykiert, and Barbara Lipińska. Hyperglycemic Hormone from the Eyestalk of the Shrimp Crangon crangon	460
Noriaki Agui and Kiyoshi Hiruma. In Vitro Activation of Neurosecretory	100
Brain Cells in Mamestra brassicae by β -Ecdysone.	467
A. GIGON-DEPEIGES AND J. P. DUFAURE. Secretory Activity of the Lizard Epididymis and its Control by Testosterone	473
LORENZO COLOMBO, PAOLA COLOMBO BELVEDERE, PIERA PRANDO, PATRIZIA	
SCAFFAI, AND TERESA CISOTTO. Biosynthesis of 11-Deoxycorticosteroids	
and Androgens by the Ovary of the Newt Triturus alpestris alpestris Laur.	480
R. E. DAVIS, J. I. MORRELL, AND D. W. PFAFF. Autoradiographic Localization of Sex Steroid-Concentrating Cells in the Brain of the Teleost <i>Macropodus</i>	
opercularis (Osteichthyes: Belontiidae)	496
P. K. SAXENA AND K. ANAND. A Comparison of Ovarian Recrudescence in the	
Catfish, Mystus tengara (Ham.), Exposed to Short Photoperiods, to Long	
Photoperiods, and to Melatonin.	506
David O. Norris, David Duvall, Karen Greendale, and William A.	
GERN. Thyroid Function in Pre- and Postspawning Neotenic Tiger Salaman-	
ders (Ambystoma tigrinum)	512
WILLIAM D. McCumbee and Robert L. Hazelwood. Biological Evaluation of	
the Third Pancreatic Hormone (APP): Hepatocyte and Adipocyte Effects	518
ARNOLD OWENS, TREVOR WIGHAM, BYRON DONEEN, AND HOWARD A.	
BERN. Effects of Environmental Salinity and of Hormones on Urinary Bladder Function in the Environmental Salinity and of Hormones on Urinary Bladder Function in the Environmental Salinity and of Hormones on Urinary Bladder Function in the Environmental Salinity and of Hormones on Urinary Bladder Function in the Environmental Salinity and of Hormones on Urinary Bladder Function in the Environmental Salinity and of Hormones on Urinary Bladder Function in the Environmental Salinity and of Hormones on Urinary Bladder Function in the Environmental Salinity and of Hormones on Urinary Bladder Function in the Environmental Salinity and of Hormones on Urinary Bladder Function in the Environmental Salinity and of Hormones on Urinary Bladder Function in the Environmental Salinity and Original	
der Function in the Euryhaline Teleost, Gillichthys mirabilis.	526
BARBARA STAY AND STEPHEN S. TOBE. Control of Juvenile Hormone Biosynthesis during the Reproductive Cycle of a Viviparous Cockroach. I. Activation	
and Inhibition of Corpora Allata.	531
J. G. Eales. In Vivo Determination of Thyroxine Deiodination Rate in Rainbow	
Trout, Salmo gairdneri Richardson. JAMES P. PRESLOCK AND EMIL STEINBERGER. Testicular Steroidogenesis in the	541
Mature and Immature Baboon Papio anubis.	
DERGE CARREAU AND MICHEL DROSDOWSKY The in Vitro Riocynthosis of Cta	547
Tolds by the Gonad of the Cuttlefish (Senia officinalis I)	554
TER ROSERKIEDE AND INGE JORGENSEN. Determination of Serum Thypovine in	
Two Species of Toads: Variation with Season	566
THO I HOLA FOR VOI I ME 11	574
Cumulative Animal Index for Volumes 31–33. Cumulative Subject Index for Volumes 31–33.	576
SUBJECT INDEX FOR VOLUMES 31–33.	570